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EXAMINER

NORDMEYER, PATRICIA L

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| ART UNIT | PAPER NUMBER |
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1772

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/934,031

Applicant(s)

ERICKSEN, MARY A.

Examiner

Patricia L. Nordmeyer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8,10-13,15-28,30-33 and 35-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,10-13,23-28,30-33 and 35-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 15-22 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Withdrawn Rejection

1. The 35 U.S.C. 102 of claim 35 as anticipated by Hokushin on Page 3, Paragraph 6 of the paper dated October 21, 2003 is withdrawn due Applicant's amendment in the Paper dated January 21, 2004

Repeated Rejections

2. The 35 U.S.C. 103 rejection of claims 1, 2 and 4 – 8 over Carte et al. in view of Lightle et al. on Pages 3 – 4, Paragraph 8, Paper dated October 21, 2003 is repeated for the reasons of record.

Carte et al. disclose a foam (Column 2, lines 64 – 67) or non-woven backing material (Column 3, lines 44 – 52) in a medical tape (Column 3, lines 31 – 34) with a pressure sensitive adhesive coated on one of the sides of the backing material (Column 3, lines 25 – 28 and Column 5, lines 33 – 41). However, Carte et al. fail to disclose the layer of retroreflective beads is substantially held in place in the non-adhesive side of the tape without the use of an additional adhesive or resin.

Lightle et al. teaches a layer of retroreflective beads that are embedded into a layer by heating and applying pressure to the layer to secure the beads (Column 2, lines 61 – 64), and the beads are coated with a layer of aluminum (Column 4, lines 49 – 65) in a retroreflective sheeting

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for the purpose of making a material that has a level of retroreflective brightness over a wide range of angles.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided a layer of retroreflective beads with a aluminum coating that are embedded in a surface in Cartle et al. in order to make material that has a level of retroreflective brightness over a wide range of angles as taught by Lightle et al.

One of ordinary skill in the art would have recognized the claimed retroreflective article would have a reflective brightness of the beads would be greater than 70 or 90% after 750 or 5,000 abrasion cycles since both Lightle et al. teach foam articles with glass beads embedded in the surface. Therefore, one of ordinary skill in the art would have readily determined the optimum reflective brightness after the abrasion cycles depending on the end desired results in the absence of unexpected results.

3. The 35 U.S.C. 103 rejection of claims 1, 2, 4, 6 – 8 and 35 - 37 over May in view of Hokushin on Pages 4 - 6, Paragraph 9, Paper dated October 21, 2003 is repeated for the reasons of record.

May discloses a tape with an adhesive side (Figure 2, #3 and Column 3, lines 38 – 39) and a non-adhesive side (Figure 1, #4) where the adhesive is a pressure sensitive adhesive (Column 5, lines 13 – 18), which sticks to the surface to which it, is applied (Column 5, lines 19

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– 24). The tape is formed from a closed-cell cross-linked foam material chosen from a variety of materials including polyurethane, silicone rubber, ethylene propylene diene terpolymer or neoprene (Column 3, lines 34 – 37). A layer of reflective microspheres, glass beads with an aluminum coating (Column 3, lines 47 – 49), are attached to the non-adhesive side of the tape by embedding the spheres in the surface of a polymeric sheet (Column 3, lines 44 – 47). However, May fails to disclose the layer of retroreflective beads is substantially held in place in the non-adhesive side of the tape without the use of an additional adhesive or resin.

Hokushin teaches a foam backing having a first side and a second side (Figure 2 and Page 4 of translation, line 30 – 37) having a layer of reflective glass beads on the front, first, side of the foamed layer (Page 4 of translation, lines 3 – 4) where the beads are held in by melting, softening, the foam layer and embedding the beads into the surface (Page 4 of translation, lines 30 – 37) for the purpose of getting a better adhesion of the beads to the surface so that they do not fall off.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided a layer of retroreflective beads with a aluminum coating that are embedded in a surface in May in order to get a better adhesion of the beads to the surface so that they do not fall off as taught by Hokushin.

One of ordinary skill in the art would have recognized the claimed retroreflective article would have a reflective brightness of the beads would be greater than 70 or 90% after 750 or

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5,000 abrasion cycles since both May and Hokushin teach foam articles with glass beads embedded in the surface. Therefore, one of ordinary skill in the art would have readily determined the optimum reflective brightness after the abrasion cycles depending on the end desired results in the absence of unexpected results.

4. The 35 U.S.C. 103 rejection of claims 10 - 13 over Hokushin in view of Lightle et al. on Pages 6 - 7, Paragraph 10, Paper dated October 21, 2003 is repeated for the reasons of record.

Hokushin teaches a foam backing having a first side and a second side (Figure 2 and Page 4 of translation, line 30 – 37) having a layer of reflective glass beads on the front, first, side of the foamed layer (Page 4 of translation, lines 3 – 4) where the beads are held in by melting, softening, the foam layer and embedding the beads into the surface (Page 4 of translation, lines 30 – 37). However, Hokushin fails to disclose the layer of retroreflective beads being coated by a layer of aluminum.

Lightle et al. teaches a layer of retroreflective beads that are embedded into a layer by heating and applying pressure to the layer to secure the beads (Column 2, lines 61 – 64), and the beads are coated with a layer of aluminum (Column 4, lines 49 – 65) in a retroreflective sheeting for the purpose of making a material that has a level of retroreflective brightness over a wide range of angles.

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It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided a layer of retroreflective beads with a aluminum coating that are embedded in a surface in Hokushin in order to make material that has a level of retroreflective brightness over a wide range of angles as taught by Lightle et al.

One of ordinary skill in the art would have recognized the claimed retroreflective article would have a reflective brightness of the beads would be greater than 70 or 90% after 750 or 5,000 abrasion cycles since Lightle et al. teach foam articles with glass beads embedded in the surface. Therefore, one of ordinary skill in the art would have readily determined the optimum reflective brightness after the abrasion cycles depending on the end desired results in the absence of unexpected results.

5. The 35 U.S.C. 103 rejection of claims 23 – 28 and 30 – 33 over May in view of Hokushin and further in view of Lightle et al. on Pages 7 - 9, Paragraph 10, Paper dated October 21, 2003 is repeated for the reasons of record.

May, as modified with Hokushin, discloses the claimed invention made with retroreflective beads except for the retroreflective beads having a coating of aluminum.

Lightle et al. teaches a layer of retroreflective beads that are embedded into a layer by heating and applying pressure to the layer to secure the beads (Column 2, lines 61 – 64), and the beads are coated with a layer of aluminum (Column 4, lines 49 – 65) in a retroreflective sheeting

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for the purpose of making a material that has a level of retroreflective brightness over a wide range of angles.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided a layer of retroreflective beads with a aluminum coating that are embedded in a surface in the modified May in order to make material that has a level of retroreflective brightness over a wide range of angles as taught by Lightle et al.

One of ordinary skill in the art would have recognized the claimed retroreflective article would have a reflective brightness of the beads would be greater than 70 or 90% after 750 or 5,000 abrasion cycles since both May teaches foam articles with glass beads embedded in the surface. Therefore, one of ordinary skill in the art would have readily determined the optimum reflective brightness after the abrasion cycles depending on the end desired results in the absence of unexpected results.

A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Since May teaches a tape with a pressure sensitive adhesive side and Lightle teaches a sheet with adhesive side, the

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structural limitations of claim 31, i.e. a medical tape, are met even though no mention of medical used is mentioned in the prior art since the intended use of the tape product causes no structural difference between the prior art and the claimed invention..

Regarding coating the first side with a pressure sensitive adhesive, covering the second side with retro reflective beads, applying heat and pressure to embed the beads into the second side of the foam and laminating the beads to the second side in claims 24 and 25, the determination of patentability for a product-by-process claim is based on the product itself and not on the method of production. If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 946, 966 (Fed. Cir. 1985) and MPEP §2113. In this case, the limitation of coating, cover and applying heat and pressure are methods of production and therefore do not determine the patentability of the product itself. Process limitations are given little or no patentable weight. The method of forming the product is not germane to the issue of patentability of the product itself. Further, when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the Applicant to present evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. *In re Brown*, 459 F.2d 531, 173 USPQ 685 (CCPA 1972); *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974).

New Rejections

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hokushin in view of Lightle et al.

Hokushin teaches a foam backing having a first side and a second side (Figure 2 and Page 4 of translation, line 30 – 37) having a layer of reflective glass beads on the front, first, side of the foamed layer (Page 4 of translation, lines 3 – 4) where the beads are held in by melting, softening, the foam layer and embedding the beads into the surface (Page 4 of translation, lines 30 – 37). However, Hokushin fails to disclose the layer of retroreflective beads being coated by a layer of aluminum.

Lightle et al. teaches a layer of retroreflective beads that are embedded into a layer by heating and applying pressure to the layer to secure the beads (Column 2, lines 61 – 64), and the beads are coated with a layer of aluminum (Column 4, lines 49 – 65) in a retroreflective sheeting for the purpose of making a material that has a level of retroreflective brightness over a wide range of angles.

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It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided a layer of retroreflective beads with a aluminum coating that are embedded in a surface in Hokushin in order to make material that has a level of retroreflective brightness over a wide range of angles as taught by Lightle et al.

Response to Arguments

8. Applicant's arguments filed January 21, 2004 have been fully considered but they are not persuasive.

9. In response to applicant's argument regarding the 35 U.S.C. 103 rejection of claims 1, 2 and 4 – 8 over Carte et al. in view of Lightle et al. that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Carte et al. teaches a tape meeting the claim limitations of the claimed structure except for retroreflective being partially embedded in the non-adhesive side of the tape and substantially held in place without adhesive. Lightle et al. teach a sheet with adhesive properties that contain retroreflective beads covered with an aluminum coating embedded in the surface. Since both articles are made of the same material, non-woven backings having adhesive coated on one side, and vary in size and intended use of the final product, it would be obvious to

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one of ordinary skill in the art at the time of the invention to place the retroreflective material in the surface of the non-woven material in order to make the wearer visible in the dark.

In response to applicant's argument regarding the 35 U.S.C. 103 rejection of claims 1 – 2, 4, 6 – 8 and 35 – 37 over May in view of Hokushin that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both May and Hokushin disclose reflective automotive adhesive sheets (tape) made with reflective beads that both use a foam layer. It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have replaced the foam and polymeric support layer containing the retroreflective beads with Hokushin's foam layer containing the beads since the foam layer of Hokushin is performing the equivalent function to May's combination layer, i.e. providing a retroreflective layer used on an adhesive sheet to reflect light back to oncoming traffic.

In response to Applicant's argument that Hokushin does not teach retroreflective beads and therefore there is no motivation to do the combination between Hokushin and Lightle et al. for the rejection of claims 10 – 13, Hokushin clearly states the use of retroreflective beads (Abstract, lines 1 – 4). It would have been obvious to one of ordinary skill in the art at the time

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the applicant's invention was made to have replaced the embedded beads of Hokushin's with the aluminum coated beads of Lightle et al. both Hokushin and Lightle disclose that is known in the art to embedded beads into the surface of different materials.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Nordmeyer whose telephone number is (571) 272-1496. The examiner can normally be reached on Mon.-Thurs. from 7:00-4:30 & alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patricia L. Nordmeyer
Examiner
Art Unit 1772

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[Signature]
HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

3/3/04